

## AVAILABLE BANDWIDTH CONTROL MECHANISM

### ABSTRACT OF THE DISCLOSURE

5           An approach for controlling bandwidth allocations for a switching system with  
transmission constraints is disclosed. A scheduler within a switching system  
generates bandwidth metrics for a destination site. A traffic control processing logic  
receives the bandwidth metrics. The traffic control processing logic includes a  
utilization module that determines utilization associated with the destination site  
10       based upon the received bandwidth metrics, and an error calculation module that  
computes the difference between the determined utilization and a target utilization. A  
gain and filtering module, which is also a part of the traffic control processing logic,  
computes a correction value based upon the difference between the determined  
utilization and the target utilization, in which the correction value being associated  
15       with the destination site. Further, the traffic control processing logic includes an  
adder that outputs a control value based upon a reference control value and the  
correction value. A bandwidth control processor assigns bandwidth allocation based  
upon the control value.